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My name is S. M. A. Alavi. I am from Iran. I was born in 10th, January, 1990, Tehran. I received my B.Sc. and M.Sc. in Control Engineering and Mechatronic Engineering at K. N. Toosi University of Technology in Summer 2012 and Winter 2015 respectively under supervision of Dr. Mahdi Aliyari.

B.Sc. Thesis Title:	Modeling and Identification of X-Y Pedestal
M.Sc. Thesis Title:	Aerodynamic load compensation controller design by electro-hydrostatic Actuator
Research Interest:	Control EngineeringSystem IdentificationMechatronic systemsFuzzy logic

Abstract:

In this thesis, identification and control of aerodynamic load simulator is discussed by electro-hydrostatic actuator. The mechanical and hydraulic parts of this actuator is simulated using Matlab-SimHydraulic software and is validated using various software like Automation Studio. To achieve a mathematical model, the black box identification method is utilized using data of simulator. Controlling the load simulator is one of the necessary subjects in the industry, thus using common industrial PID controllers, we control the system under study. Due to complexities and non-linear behaviors of the system, PID controllers are not able to control it so using intelligent controllers such as neural FEL and fuzzy PI controllers, we improve the system controlling and finally the gathered results will be compared then required analysis will be done.

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